PROPOSED

TEMPORARY COVERED SOURCE PERMIT (CSP) APPLICATION REVIEW
Temporary CSP No. 0549-01-CT
Significant Modification Application No. 0549-02

Applicant: Keauhou Kona Construction Corporation (KKCC)
Facility: 325, 380, and 950 TPH portable crushing and processing plants
Located at: Various Temporary Sites, State of Hawaii

Mailing Address: P.O. Box 9007
Kailua-Kona, Hawaii 96754

Equipment: 325 TPH, 380 TPH, and 950 TPH portable crushing and processing plants encompassing the following equipment and associated appurtenances:

a. 200-325 TPH Minyu jaw crusher (30" x 42"), model no. MS-4230, serial no. 207 with El-Jay vibratory feeder (46" x 16');
b. 340-380 TPH Kue Ken jaw crusher, model no. 4236 (42" x 36"), serial no. 120M5017 with stepped vibrating grizzly feeder (42" x 16');
c. 620-950 TPH Telsmith jaw crusher (38" x 58"), model no. 3858, serial no. 222M8214 with vibrating grizzly feeder (20' x 54");
d. 210 TPH Telsmith cone crusher, model no. 48 S TEL, serial no. 202M7274;
e. 270-380 TPH Cedarapids cone crusher, model no. 1313, serial no. 23JO791;
f. El-Jay two-deck screen;
g. Cedarapids three-deck screen, model no. FSG616332 (6' x 16'), serial no. 34G0689;
h. 275 hp Caterpillar diesel engine, model no. 3306T, serial no. 7JB05489, servicing the 340-380 TPH Kue Ken primary jaw crusher with associated conveyors and feeder;
i. 360 kW Detroit diesel engine generator, model no. 8083-7400, serial no. 8VF112536;
j. 505 hp Cummins diesel engine generator, model no. KT-1150-G, serial no. 31118276;
k. 587 hp Caterpillar diesel engine generator, model no. 3406C, serial no. 4ZR06944;
l. Various conveyors; and
m. Water spray system(s).

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1. Background.

1.1 KKCC has submitted an application for significant modification to add a 950 TPH portable rock crushing plant to their temporary covered source permit. Power for the plant will be provided by any of the three existing diesel engine generators because there is no dedicated diesel engine built into the plant for its operation. As indicated by the applicant, a side conveyor and hydraulic ram at operator platform are options available for the plant that were not purchased. It was also indicated that the feeder for the plant is 20' long x 54" wide. Typical operating hours for the facility is 8 hours per day, 5 days per week. The Standard Industrial Classification Code for this facility is 1429 (Crushed and Broken Stone, Not Elsewhere Classified). For the permit modification, KKCC requested that:

a. The 950 TPH jaw crushing plant can run with either of the secondary jaw crushers;

b. The 950 TPH jaw crushing plant can run with any of the existing permitted diesel engine generators;

c. Each primary crusher can operate simultaneously at different locations with one secondary crusher and one diesel engine generator;

d. The 950 TPH jaw crushing plant is allowed to operate as much as 2,500 hr/yr; and

e. Each diesel engine is allowed to operate as much as 22 hours per day.

1.2 The existing 360 kW Detroit diesel engine generator was replaced with an entirely new 360 kW Detroit diesel engine with different specifications than those reported for the existing engine. The new serial number and model number for the engine are 8VF112536 and 8083-7400, respectively.

1.3 Some of the equipment model and serial numbers, including those for the 360 kW diesel engine generator, have been changed pursuant to site inspection by Enforcement Section personnel that found numbers different than those reported in the previous permit applications.

1.4 Per telephone conversation with Mr. Peyer, the serial no. for the 587 hp diesel engine generator is 4ZR06944.

2. Applicable Requirements.

2.1. Hawaii Administrative Rules (HAR)
- Chapter 11-59, Ambient Air Quality Standards
- Chapter 11-60.1, Subchapter 1, General Requirements
- Chapter 11-60.1, Subchapter 2, General Prohibitions
  - 11-60.1-31, Applicability
  - 11-60.1-32, Visible emissions
  - 11-60.1-33, Fugitive dust
  - 11-60.1-38, Sulfur Oxides from Fuel Combustion
- Chapter 11-60.1, Subchapter 5, Covered Sources
- Chapter 11-60.1, Subchapter 6, Fees for Covered Sources, Noncovered Sources, and Agricultural Burning
  - 11-60.1-111, Definitions
  - 11-60.1-112, General fee Provisions for Covered Sources
  - 11-60.1-113, Application Fees for Covered Sources
  - 11-60.1-114, Annual fees for Covered Sources
- Chapter 11-60.1, Subchapter 8, Standards of Performance for Stationary Sources
  - 11-60.1-161, New Source Performance Standards
- Chapter 11-60.1, Subchapter 10, Field Citations

2.2 Except for the diesel engines and 210 TPH cone crusher, 40 Code of Federal Regulations (CFR) Part 60-New Source Performance Standards (NSPS), Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants is applicable to the crushing and screening equipment because the equipment was manufactured after 1983 and the primary crushers have a capacity greater than 150 TPH. The 210 TPH cone crusher was manufactured prior to 1983 and there are no requirements in Subpart OOO for diesel engines.

2.3 Compliance Data System (CDS) is applicable because the facility is a covered source.

2.4 The facility is not a major stationary source for hazardous air pollutants (HAPs) and is not subject to National Emissions Standards for Hazardous Air Pollutants (NESHAPS) or Maximum Achievable Control Technology (MACT) requirements under 40 CFR, Parts 61 and 63.

2.5 The purpose of Compliance Assurance Monitoring (CAM) is to provide reasonable assurance that compliance is being achieved with large emission units that rely on air pollution control device equipment to meet an emissions limit or standard. Pursuant to 40 CFR, Part 64, for CAM to be applicable, the emissions unit must: (1) be located at a major source; (2) be subject to an emissions limit or standard; (3) use a control device to achieve compliance; (4) have potential precontrol emissions that are greater than the major source level; and (5) not otherwise be exempt from CAM. CAM is not applicable to because this facility is not a major source.

2.6 Prevention of Significant Deterioration (PSD) review applies to new major stationary sources and major modifications to these types of sources. This facility is not a major source for any single air pollutant. As such, PSD review is not required.

2.7.1 A Best Available Control Technology (BACT) analysis for PM is required for the modification to add a 950 TPH plant and replace the 360 kW diesel engine generator with a new engine because emissions exceed significant levels as defined in HAR, Section 11-60.1-1 (see table below).

Pollutant	Emissions (TPY)	Significant Level (TPY)
	950 TPH Jaw Crushing Plant and 360 kW Diesel Engine Generator at 2,500 hr/yr Operation	
PM	35.8	25
PM-10	12.4	15
NO_X	18.3	40
SO_2	2.1	40
CO	3.9	100
VOCs	1.5	40

a. Based on emissions from Paragraphs 6.1.1, 6.2.1, 6.3.1, and 6.4.1 for emissions associated with the 950 TPH plant and 360 kW diesel engine generator.

2.7.2 Because a majority of the particulate emissions are from fugitive dust associated with operation of the crushing and processing plants, the applicant proposes the following measures for the 950 TPH crushing plant as BACT for PM:

a. Water sprays are installed for the plant at three locations. As indicated by KKCC personnel, the water sprays are located at the primary crusher, side conveyor discharge to stockpile (however side conveyor as an option was not purchased), and main conveyor discharge to stockpile;
b. A water spray truck will be used to control dust on facility grounds; and
c. Personnel operating the plant will adjust water flows as necessary to minimize dust.

2.8 The facility is a synthetic minor source because limits have been imposed to restrict the facility from exceeding major source levels for NO_X and PM and PM-10 if operated at 8,760 hr/yr. Note that all fugitive particulate emissions are considered for the major source determination because the facility is subject to NSPS.

2.9 Annual emissions reporting is required because this facility is a covered source.

2.10 The Consolidated Emissions Reporting Rule (CERR) is not applicable because emissions from the facility are less than reporting levels pursuant to 40 CFR 51, Subpart A (see table below).

Pollutant	Facility Emissions (TPY)	CERR Triggering Levels (TPY)	
		3 Year Cycle (Type A Sources)	1 Year Cycle (Type B Sources)
PM-10	29.3	≥ 100	≥ 250
SO_2	8.2	≥ 100	≥ 2,500
NO_x	70.7	≥ 100	≥ 2,500
VOC	5.7	≥ 100	≥ 250
CO	15.3	≥ 1,000	≥ 2,500

3. Insignificant Activities and Exemptions.

3.1 There were no reported insignificant activities or exemptions.

4. Alternate Operating Scenarios.

4.1 There were no proposed alternate operating scenarios.

5. Air Pollution Controls.

5.1 Fugitive dust from the 950 TPH jaw crushing plant will be controlled by a water spray system and water spray truck at each temporary location. The applicant indicated water sprays will be installed at the following locations:

a. Water spray bar/nozzle at jaw crusher inlet; and

b. Water spray bar/nozzle at conveyor discharge to stock piles.

6. Project Emissions.

6.1.1 Emissions for the 360 kW Detroit diesel engine were recalculated because the engine was replaced with a remanufactured core and the maximum fuel consumption reported was larger for the new engine. Emission factors from AP-42, Section 3.3 (10/96),"Gasoline and Industrial Engines" were used to determine emissions. A worst-case fuel consumption of 24.2 gal/hr was used for the calculations. Emission rates were based on 2,500 hr/yr operation, a 19,300 Btu/lb fuel heating value, and a fuel density of 7.1 lb/gal for diesel. Emissions are summarized below:

360 kW Diesel Engine Emissions				
Pollutant	Emission Factor (lb/MMBtu)	Emission Rate (lb/hr)/(g/s)	Emission Rate (TPY) 2,500 hr/yr	[8,760 hr/yr]
NO_X	4.41	14.624/1.847	18.3	64.1
CO	0.95	3.150/0.398	3.9	13.7
SO_2	[a]Mass Balance	1.717/0.217	2.1	7.4
PM	0.32	1.061/0.134	1.3	4.6
PM-10	0.31	1.028/0.130	1.3	4.6
PM-2.5	0.29	----------	1.2	4.2
TOC	0.36	----------	1.5	5.3
HAPs	Various (0.006)	----------	0.025	0.088

a: Based on mass balance as follows:
S/SO_2 = 32.06/64.06
(24.2 gal/hr)(7.1 lb diesel/gal)(0.005 sulfur) = 0.859 lb sulfur/hr
SO_2 = (0.859)(64.06/32.06) = **1.717 lb/hr**
(1.717 lb/hr)(kg/2.2 lb)(1,000g/kg)(hr/3,600 s) = **0.217 g/s**
(1.717 lb/hr)(2,500 hr/yr) (ton/2,000 lb) = **2.1 TPY**

b. Based on AP-42, Appendix B.2 (9/90), Table B.2-2, indicating 96% PM=PM-10 worst-case

c. Based on AP-42, Appendix B.2 (9/90), Table B.2-2, indicating 90% PM=PM-2.5 worst-case

6.1.2 Emissions from the remaining diesel engines are shown below. The same assumptions were made to determine emissions as those in Paragraph 6.1.1, except that the maximum fuel consumption for the 275 hp, 505 hp, and 587 hp engines is 15.1 gal/hr, 25 gal/hr, and 29.2 gal/hr, respectively.

275 hp Diesel Engine Emissions				
Pollutant	Emission Factor (lb/MMBtu)	Emission Rate (lb/hr)/(g/s)	Emission Rate (TPY) [2,500 hr/yr]	Emission Rate (TPY) [8,760 hr/yr]
NO_X	4.41	9.125/1.152	11.4	40.0
CO	0.95	1.966/0.248	2.5	8.6
SO_2	Mass Balance	1.071/0.135	1.3	4.7
PM	0.32	0.662/0.084	0.8	2.8
PM-10	0.31	0.641/0.081	0.8	2.8
PM-2.5	0.29	----------	0.8	2.8
TOC	0.36	----------	0.9	3.3
HAPs	Various (0.006)	----------	0.016	0.056

505 hp Diesel Engine Emissions				
Pollutant	Emission Factor (lb/MMBtu)	Emission Rate (lb/hr)/(g/s)	Emission Rate (TPY) [2,500 hr/yr]	Emission Rate (TPY) [8,760 hr/yr]
NO_X	4.41	15.108/1.908	18.9	66.2
CO	0.95	3.254/0.411	4.1	14.3
SO_2	mass balance	1.758/0.222	2.2	7.7
PM	0.32	1.096/0.138	1.3	4.9
PM-10	0.31	1.062/0.134	1.3	4.6
PM-2.5	0.29	----------	1.2	4.2
TOC	0.36	----------	1.5	5.4
HAPs	various (0.006)	----------	0.026	0.090

587 hp Diesel Engine Emissions				
Pollutant	Emission Factor (lb/MMBtu)	Emission Rate (lb/hr)/(g/s)	Emission Rate (TPY) [2,500 hr/yr]	Emission Rate (TPY) [8,760 hr/yr]
NO_X	4.41	17.645/2.228	22.1	77.3
CO	0.95	3.801/0.480	4.8	16.8
SO_2	mass balance	2.072/0.262	2.6	9.1
PM	0.32	1.280/0.162	1.6	5.4
PM-10	0.31	1.240/0.157	1.6	5.4
PM-2.5	0.29	----------	1.5	5.3
TOC	0.36	----------	1.8	6.3
HAPs	various (0.006)	----------	0.030	0.105

6.2.1 Emission factors from AP-42, Section 11.19.2 (8/04) "Crushed Stone Processing and Pulverized Mineral Processing" were used to predict fugitive dust emissions from the 950 TPH jaw crushing plant. Emission factors were selected from the uncontrolled category and a 70% control efficiency was used to account for water sprays. Emissions, shown in Enclosure (1), were based on the equipment's rated capacity and 2,500 hr/yr operation. Emissions are summarized below:

950 TPH Plant Emissions		
Pollutant	Emission Rate (TPY) [2,500 hr/yr With Controls]	Emission Rate (TPY) [8,760 hr/yr With Controls]
PM	3.1	10.9
PM-10	1.3	4.6
PM-2.5	0.1	0.4

6.2.2 Crushing and screening plant emissions from the remaining equipment were determined using AP-42, Section 11.19.2 (8/04) "Crushed Stone Processing and Pulverized Mineral Processing". Emission factors were selected from the uncontrolled category and a 70% control efficiency was used to account for water sprays. Emissions, shown in Enclosure (2), were based on the equipment's rated capacity at 2,500 hr/yr operation. Emissions are summarized below:

325 TPH and 380 TPH Plant Emissions

Pollutant	Emission Rate (TPY) [2,500 hr/yr With Controls]	Emission Rate (TPY) [8,760 hr/yr With Controls]
PM	15.6	54.7
PM-10	5.8	20.3
PM-2.5	1.2	4.2

6.3.1 Emissions from active stockpiles associated with the 950 TPH plant were determined using AP-42, Section 13.2.4 (1/95), "Aggregate Handling and Storage Piles." Emissions were based on a total aggregate production from 950 TPH plant at 2,500 hr/yr operation that is, 2,375,000 TPY. Emission factors were determined from the following data: a U value of 10.9 mph (mean wind speed data from Hilo, Honolulu, Kahului, and Lihue), K value for PM-2.5, PM-10, and PM of 0.11, 0.35, 0.74, respectively, and 0.7% moisture content for stone quarrying and processing. A 70% control efficiency was assumed for the storage piles for using water sprays. Emissions are summarized below.

Stockpile Emissions

Pollutant	Emission Factor (lb/ton)	950 TPH Plant	
		Emission Rate (TPY) [With Controls at 2,500 hr/yr]	Emission Rate (TPY) [With Controls at 8,760 hr/yr]
PM	0.028	10.0	35.0
PM-10	0.013	4.6	16.1
PM-2.5	0.004	1.4	4.9

6.3.2 Stockpile emissions from the remaining plant equipment are shown below. The same assumptions were made to determine emissions as those in Paragraph 6.3.1, except that a different throughput was assumed (325 TPH [812,500 TPY] and 380 TPH [950,000 TPY]).

Stockpile Emissions

Pollutant	Emission Factor (lb/ton)	Emission Rate (TPY) [With Controls at 2,500 hr/yr]		Emission Rate (TPY) [With Controls at 8,760 hr/yr]	
		325 TPH Plant	**380 TPH Plant**	**325 TPH Plant**	**380 TPH Plant**
PM	0.028	3.5	4.0	12.3	14.0
PM-10	0.013	1.6	1.9	5.6	6.7
PM-2.5	0.004	0.5	0.6	1.8	2.1

6.4.1 Emissions attributed to the 950 TPH plant from vehicle travel on unpaved roads were calculated using emission factors determined from equation for vehicles traveling on unpaved surfaces at industrial sites. The equation was obtained from AP-42, Section 13.2.2 (12/03) "Unpaved Roads". The Equation (1a) emission factor was extrapolated to annual average uncontrolled conditions using Equation (2). Emission rates were based on the following assumptions:

a. A distance of 45,238 vehicle miles traveled (VMT) per year for the 950 TPH crushing plant based on 2,500 hr/yr operation, a truck capacity of 21 tons, and a 0.4 mile two-way travel distance;

b. A k (constant) for PM, PM-10, and PM-2.5 of 4.9, 1.5, and 0.23, respectively based on data for industrial roads;

c. An a (constant) for PM, PM-10, and PM-2.5 of 0.7, 0.9, and 0.9, respectively based on data for industrial roads;

d. A b (constant) for PM and PM-10 of 0.45 based on data for industrial roads;

e. An s (silt content of road) value of 3.9% based on information from AP-42, Section 13.2.2 - Unpaved Roads Related Information (www.epa.gov//ttn/chief/ap42/ch13/related/c13s02-2.html;

f. A W (mean vehicle weight) value of 26.5 tons;

g. A p (# of days with 0.1" of rain/year) value of 171 based on available data between years 1956 and 2003 from Opihihale 2, Hawaii (www.wrcc.dri.edu/cgi-bin/cliGCStP.pl?hiopih);

h. A 70% control efficiency was applied to account for dust control from water trucks; and

i. Vehicle travel emissions associated with the 950 TPH plant are listed as follows:

Vehicle Travel Emissions			
Pollutant	Emission Factor (lb/VMT)	950 TPH Plant	
		Emission Rate (TPY) [With Controls at 2,500 hr/yr]	Emission Rate (TPY) [With Controls at 8,760 hr/yr]
PM	3.160	21.4	75.0
PM-10	0.772	5.2	18.2
PM-2.5	0.118	0.8	2.8

6.4.2 Emissions for the 325 TPH and 380 TPH plants from vehicle travel on unpaved roads are shown below. The same assumptions were made to determine emissions as those in Paragraph 6.4.1, except that a different VMT was assumed (325 TPH [812,500 TPY/15,476 VMT] and 380 TPH [950,000 TPY/18,095 VMT]).

Vehicle Travel Emissions					
Pollutant	Emission Factor (lb/VMT)	Emission Rate (TPY) [With Controls at 2,500 hr/yr]		Emission Rate (TPY) [With Controls at 8,760 hr/yr]	
		325 TPH Plant	**380 TPH Plant**	**325 TPH Plant**	**380 TPH Plant**
PM	3.160	7.3	8.6	25.6	30.1
PM-10	0.772	1.8	2.1	6.3	7.4
PM-2.5	0.118	0.3	0.3	1.1	1.1

6.5 Facility-wide emissions for operation of the 325 TPH, 380 TPH, and 950 TPH crushing and processing plants are listed as follows:

Facility-Wide Emissions		
Pollutant	Potential Emission (TPY) [Proposed controls at 2,500 hr/yr]	Potential Emission (TPY) [Proposed controls at 8,760 hr/yr]
CO	15.3	16.8
NO_x	70.7	247.6
SO_2	8.2	28.9
PM	78.5	275.3
PM-10	29.3	102.6
PM-2.5	9.9	34.9
VOC	5.7	20.3
HAPs	0.097	0.339

7. Air Quality Assessment.

7.1 An air modeling assessment was conducted for the 275 hp, 360 kW, 505 hp, 587 hp diesel engines operating simultaneously using BEE-Line's BEEST (ISCST3) program because the engine specifications changed for the 360 kW Detroit diesel engine. For the air modeling assessment, the following was assumed:

a. Rural dispersion parameters;

b. Simple and complex terrain effects;

c. Terrain elevation data using the Kiholo topographic quadrant zone 5 from file 0030.DEM for terrain data in NAD27 format;

d. Terrain special grid with 25 meter spacing;

e. Sources located at approximate center of a 1,000 x 1,000 square meter grid area;

f. Meteorological data from file K10.ASC;

g. UTM coordinates for source and other equipment in NAD83 converted to NAD27 using Corpscon for Windows;

h. Equipment and source location arbitrarily selected in vicinity of location proposed for source; and

i. EPA building profile input program (BPIP) applied to evaluate the effects of down wash from the screen/cone plant, 325 TPH primary plant, and 380 TPH primary plant.

7.3 The following background concentrations were used for the assessment:

a. SO_2 - collected in 2003 from the Kona monitoring station;

b. PM_{10} - collected in 2003 from the Hilo monitoring station; and

c. NO_2 and CO - collected in 2003 from the new Kapolei monitoring station.

7.4 The table below presents the potential emission rates and stack parameters used in the air modeling assessment.

SOURCE EMISSION RATES AND STACK PARAMETERS FOR AIR MODELING

SOURCE		EMISSION RATES				STACK PARAMETERS			
Equipment	Stack No.	SO_2 (g/s)	NO_x (g/s)	CO (g/s)	PM_{10} (g/s)	Height (m)	Temp. (K)	Velocity (m/s)	Diameter (m)
275 hp Diesel Engine	1	0.135	1.152	0.248	0.081	6.0	937	69.222	0.127
360 kW Diesel Engine	2	0.217	1.847	0.398	0.130	6.0	685	120	0.120
505 hp Diesel Engine	3	0.222	1.908	0.411	0.134	6.0	777	78.134	0.152
587 hp Diesel Engine	4	0.262	2.228	0.480	0.157	6.0	845.8	126.8	0.127

7.5 The predicted concentrations in the following table assumed 2,500 hr/yr operation and the maximum g/s emission rates. Based on these assumptions, the emissions impact from the diesel engines will comply with state and federal ambient air quality standards.

PREDICTED AMBIENT AIR QUALITY IMPACTS

AIR POLLUTANT	AVERAGING TIME	IMPACT (ug/m^3)	BACKGROUND (ug/m^3)	TOTAL IMPACT (ug/m^3)	AIR STANDARD (ug/m^3)	PERCENT STANDARD
Sulfur Dioxide	3-Hour [b]24-Hour [c]Annual	805 222 6	91 19 8	896 241 14	1,300 365 80	69 66 18
Nitrogen Dioxide	[c]Annual	50	9	59	70	84
Carbon Monoxide	1-Hour 8-Hour	2,019 852	2,052 1,938	4,071 2,790	10,000 5,000	41 56
PM-10	[a,b]24-Hour Annual	126 3	20 12	145 15	150 50	97 30

a: Second highest high concentration used and limiting concentration not exceeded more than once in a calendar year as required by HAR §11-59-4.

b: Concentration reduced by a factor of 22/24 to account for a 22 hour per day operating limit for each diesel engine.

c. Concentration reduced by a factor of 2,500/8,760 to account for a 2,500 hour per year operating limit for each diesel engine.

d. $NO_2 = NO_x$

8. Significant Permit Conditions.

8.1 The total operating hours of the portable rock crushing plants, diesel engine, and each diesel engine generator shall not exceed 2,500 hours operation in any rolling twelve (12) month period.

8.2 The diesel engine and each diesel engine generator shall not exceed 22 hours of operation per day.

8.3 The permittee shall install, operate, and maintain a non-resetting hour meter on the diesel engine, diesel engine generators, 325 TPH primary plant, and 950 TPH primary plant for the continuous and permanent recording of the number of hours operated.

Reasons for 8.1 through 8.3:

The hour limits were incorporated into the permit to limit the facility's operation to 2,500 hr/yr as proposed by the applicant. The 380 TPH plant's hourly operation is monitored by the 275 hp diesel engine that is built into the plant to provide power. The 325 TPH and 950 TPH primary plants can be powered with electricity from any of the three remaining diesel engine generators. The 325 TPH and 950 TPH plants do not have a dedicated engine. Therefore, these plants require an hour meter. The hours of operation for the secondary crushing and screening depend on those for the primary plants because the secondary plants will only operate when the primary plants are running. Both the 22 hr/day and 2,500 hr/yr operating limits are required for the diesel engine and each diesel engine generator to comply with the ambient air quality standards for operation at the same location worst-case.

8.4 The minimum stack height for the diesel engine and each diesel engine generator shall be thirty 6 meters (about 19 feet - 8 inches).

Reason for 8.4

The minimum stack height requirements were incorporated for the diesel engine and each diesel engine generator to show compliance with air standards for operation of all the equipment at one location worst-case.

8.5 Change the permit to allow provisions for the permittee to interchange equipment.

Reason for 8.5:

Change per applicant's request. Equipment for each temporary site will be identified during change of location requests.

9. Conclusion.

9.1 Actual emissions from the portable rock crushing plants should be lower than estimated because potential emissions were based on operation of the plants at maximum capacity. Plant operation is not expected to reach maximum capacity for extended periods of time. A water spray system and a water spray truck will be used by the applicant at each temporary site to control fugitive dust. Hour limits on the diesel engines should ensure compliance with state and federal ambient air quality standards. Recommend issuance of the permit subject to the incorporation of the significant permit conditions, the 30-day public comment period, and 45-day EPA review period. When issued, this permit will supersede CSP No. 0549-01-CT, issued on March 31, 2004, in its entirety.

Mike Madsen 1-25-2005